

REMARKS

Claims 1, 3-4, 6-7, 9, 11-12, 14-15, 17, 19 and 21-25 are pending in the application. The Office Action rejects all claims. Applicants respectfully request reconsideration of the above-identified claims in view of the following Remarks and Examiner Interview held on January 29, 2008. No claim amendments are made with this Response.

The previous Office Action dated May 17, 2007 stated that claims 23-25 are allowable subject matter if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, the present Office Action states new grounds of rejection, without presenting the same allowable subject matter.

Examiner Interview conducted on January 29, 2008

A telephonic Examiner Interview was conducted on January 29, 2008, in regard to the above-referenced application. The participants to the interview included Examiner Burton Mullins and Applicants' Patent Attorney Jeffrey Wax. No exhibits were utilized during the interview. The Office Action cited references were discussed including Dunfield (U.S. Patent 5,694,268), and Nitta (U.S. Patent 5,604,389). Applicants' pending claims were also discussed. Applicants' Patent Attorney Jeffrey Wax stated reasons why Dunfield would not be combined with Nitta, and why Nitta would not be combined with Dunfield in the manner stated in the Office Action (as stated below). Examiner Mullins stated that he understood and appreciated the examples given, but further consideration would be needed.

Claims Rejected Under 35 U.S.C. § 103(a)

Claims 1, 7, 9, 15, 17 and 22 -25

The Office Action rejects claims 1, 7, 9, 15, 17 and 22 -25 under 35 U.S.C. 103(a) as being unpatentable over Dunfield (U.S. Patent 5,694,268) in view of Nitta (U.S. Patent 5,604,389).

Applicants traverse the claims rejection to show that obviousness is not established. Features of Applicants' claimed invention are not taught or suggested by the references either individually or combined. Further, there is no suggestion or motivation either in the references or in knowledge

generally available to one of ordinary skill in the art to modify the references or combine the references as stated.

The Office Action cited Dunfield (U.S. Patent 5,694,268) reference:

The Office Action states that Dunfield does not teach:

“that the base plate axial thickness is minimized (i.e., reduced) adjacent the separation by a recess defined within a radially extending portion of the base plate, and wherein a portion of the stator is positioned within the recess.”

The Office Action further states:

“it would have been obvious to modify Dunfield and minimize the base plate axial thickness adjacent the separation with a recess defined within a radially extending portion of the base plate, and wherein a portion of the stator is positioned within the recess per Nitta to reduce the thickness of the motor.”

Applicants traverse the obviousness rejection. Applicants submit that there is no motivation or suggestion to modify Dunfield with the Nitta description as suggested by the Office Action. Dunfield very effectively damps sympathetic vibrations in a stator structure to reduce generation of acoustic noise. In order to reduce vibrations, Dunfield describes, at length, various mounting techniques to secure the stator to the base including an annular projection, a mounting aperture, a mounting pin, a mounting ear, a mounting ring, an O-ring, a C-clamp, etc.

The overmold in Dunfield is used for damping vibrations, and is employed along with the various mounting techniques. As an example, the Dunfield mounting pin 242 occupies axial space between the stator and base plate (Fig. 9). In another example, screw 340 (Fig. 17) secures the stator to the base and similarly occupies axial space.

In contrast to Applicants claimed invention, a bonding substance is not formed around the stator to the base plate and motor seal for stiffness and creating a composite component to minimize the base plate and axial space and form a low profile disc drive. Applicants minimize axial space, while the Dunfield mountings occupy axial space in damping vibrations. Thus, there is no teaching in Dunfield to combine or modify its invention with the Nitta reference in an obviousness manner as stated in the Office Action.

The Office Action cited Nitta (U.S. Patent 5,604,389) reference:

The Office Action states:

“In the combination, the [Nitta] openings/recesses would be substantially filled with the bonding substance of Dunfield... .. since the bonding substance would fill the openings/recesses to fully encapsulate the stator coils...”

Applicants traverse the obviousness rejection. Applicants submit that Nitta teaches away from utilizing a bonding substantially about a stator, as in Applicants’ claimed invention.

In contrast to Applicants’ claimed invention where the stator is situated radially outside of the magnet, Nitta describes a stator radially inside of a magnet. Therefore, Nitta cannot encapsulate a stator while minimizing axial thickness, since a molding on top of the Nitta stator would increase axial thickness, since the stationary stator cannot be molded to a rotating rotor 5 (Nitta, Fig. 23) attached to the magnet. In contrast, Applicants’ claimed invention encapsulates a stator, and attaches the stator to an above motor seal, since the above motor seal is also a stationary component.

Further, in contrast to Applicants claimed invention, Nitta does not bond the coil and phase windings to the base plate. Instead, Nitta shows an L-shaped extension (pawls 18) extending from the base plate, which fits into a hole 17 in the stator core. (see Nitta, FIGs. 4, 5 and 8).

Nitta states:

“The stator core 1 is fixed to the base plate 4 by fitting the pawls 18 of the base plate 4 into the holes 17 of the stator core 1. The lower part of each coil 2 is inserted into the corresponding opening 13.” (Nitta, col. 4, lines 41-45).

Further, although Nitta states that a drive coil 10 is molded in resin, the coil and laminator fit inside the drive coil 10. It is the drive coil 10 that is molded in Nitta, and not the coil and laminator, as in Applicants claimed invention. Nitta states: “The stator core 1 and coils 2 are sealed inside the drive coil 10. The molding is accomplished after the stator and the PWB are fitted to the base plate.” (Nitta, col. 3, lines 56-63).

Nitta also fails to teach bonding the stator to a motor seal. The motor in Nitta situates the magnet radially outside of the stator, without a motor seal positioned axially above a stator. In contrast, the present invention describes, in an embodiment, the magnet situated radially inside of the stator, and a motor seal positioned axially above a stator, for low profile motors.

Nitta also describes various embodiments of supplemental members 11 extending from the laminator that protrude away from the base plate, used for reducing axial force between the stator and magnet. In contrast, Applicants claimed invention forms and utilizes a composite component of the stator and base plate, in part, to create motor stability and counter axial forces.

Applicants submit that there is no teaching or suggestion either individually, or combining the references to form a composite component of the base plate, stator and motor seal, wherein the base plate axial thickness is minimized adjacent to the separation, as in Applicants claimed invention.

Claims 1, 3, 7, 9, 11, 15, 17, 19 and 22 -25

The Office Action also rejects claims 1, 3, 7, 9, 11, 15, 17, 19 and 22 -25 under 35 U.S.C. 103(a) as being unpatentable over Lieu (U.S. Patent 6,844,636) in view of Nitta (U.S. Patent 5,604,389).

The Office Action cited Lieu (U.S. Patent 6,844,636) reference:

The Office Action states:

“it would have been obvious to modify Lieu and minimize the base plate axial thickness adjacent the separation with a recess defined within a radially extending portion of the base plate, and wherein a portion of the stator is positioned within the recess per Nitta to reduce the thickness of the motor.”

Applicants traverse the claims rejection and submit that there is no motivation or suggestion to modify Lieu with the Nitta description as suggested by the Office Action.

Nitta would not be combined with Lieu for at least the reasons as stated above with respect to combining Nitta with Dunfield. Nitta cannot encapsulate a stator while minimizing axial thickness, since a molding on top of the Nitta stator would increase axial thickness, since the

stationary stator cannot be molded to a rotating rotor 5 (Nitta, Fig. 23) attached to the magnet. In contrast, Applicants' claimed invention encapsulates a stator, and attaches the stator to an above motor seal, since the above motor seal is also a stationary component. Further, Lieu does not mold its material to a motor seal as in the present invention.

Claims 1, 7, 9, 15, 17 and 22 -25

The Office Action also rejects claims 1, 7, 9, 15, 17 and 22 -25 under 35 U.S.C. 103(a) as being unpatentable over MacLeod (U.S. Patent 6,282,053) in view of Nitta (U.S. Patent 5,604,389).

The Office Action cited MacLeod (U.S. Patent 6,282,053) reference:

The Office Action states:

“it would have been obvious to modify MacLeod and minimize the base plate axial thickness adjacent the separation with a recess defined within a radially extending portion of the base plate, and wherein a portion of the stator is positioned within the recess per Nitta to reduce the thickness of the motor.”

Applicants traverse the claims rejection and submit that there is no motivation or suggestion to modify MacLeod with the Nitta description as suggested by the Office Action.

Nitta would not be combined with MacLeod for at least the reasons as stated above with respect to combining Nitta with Dunfield. Nitta cannot encapsulate a stator while minimizing axial thickness, since a molding on top of the Nitta stator would increase axial thickness, since the stationary stator cannot be molded to a rotating rotor 5 (Nitta, Fig. 23) attached to the magnet. In contrast, Applicants' claimed invention encapsulates a stator, and attaches the stator to an above motor seal, since the above motor seal is also a stationary component.

Kuwert (U.S. Patent 5,986,365), Utsumi (U.S. Patent 6,661,150) and Yamaguchi 6,762,518 cited references:

Applicants claim a motor seal, a base plate and a stator united, and minimizing the axial thickness of the base plate. Applicants submit that Kuwert, Utsumi and Yamaguchi fail to describe or suggest bonding the stator to a motor seal. The motors in these references situate the magnet radially outside of the stator, without a motor seal positioned axially above a stator. In

contrast, the present invention claims the stator situated radially outside of the magnet, and a motor seal positioned radially outside of the magnet and positioned axially above the stator. Kuwert also fails to describe or suggest a low profile motor or minimizing the axial thickness of a base plate. Yamaguchi also fails to describe or suggest bonding the stator to a base. Instead Yamaguchi concaves a circuit board 2 into concave portion 2a.

Dependent Claims 3-4, 6-7, 11-12, 14-15, 19, and 21-25

Since it is submitted that the Applicants' independent claims overcome the 35 U.S.C. 103(a) claim rejections, it is further submitted that the dependent claims overcome the rejections. Further, Applicants' dependent claims recite further features and combinations of features that are patentably distinct and not taught or suggested by the combined cited references.

Applicant's Request to Examiner Mullins, pursuant to MPEP §707.07(f)

MPEP §707.07(f) states:

If applicant's arguments are persuasive and upon reconsideration of the rejection, the examiner determines that the previous rejection should be withdrawn, the examiner must provide in the next Office communication the reasons why the previous rejection is withdrawn by referring specifically to the page(s) and line(s) of applicant's remarks which form the basis for withdrawing the rejection. It is not acceptable for the examiner to merely indicate that all of applicant's remarks form the basis for withdrawing the previous rejection.

Applicants respectfully request that Examiner Mullins provide specific reason(s) why Applicants' arguments filed March 18, 2007 were considered persuasive, as stated in the Office Action dated May 17, 2007. Specifically, Applicant solicits reason(s) why Examiner Mullins considers Applicants' arguments persuasive as to the 35 U.S.C. 103(a) rejection involving Dunfield (U.S. Patent 5,694,268), as stated by Examiner Mullins in the Office Action dated May 17, 2007. This information is pertinent since Dunfield (U.S. Patent 5,694,268) is again presented in the current Office Action.

Similarly, Applicants previously argued against a 35 U.S.C. 103(a) rejection involving the Dunfield (U.S. Patent 5,694,268) reference in an earlier Appeal to the to the Board of Patent Appeals and Interferences in the present application, in which Examiner Yahveh Comas

considered Applicants' formal Appeal and withdrew the rejection, stating on the record that Applicants' arguments were persuasive.

This request is intended to help avoid repeating the same issues as to Dunfield (U.S. Patent 5,694,268) that were previously appealed and argued in which Applicants' arguments were found persuasive.

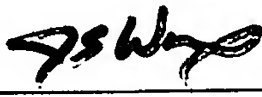
CONCLUSION

In view of the foregoing, it is submitted that 1, 3-4, 6-7, 9, 11-12, 14-15, 17, 19 and 21-25 patentably define the subject invention over the cited references of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date.

If the Examiner believes a telephone conference would be useful in moving the case forward, please contact the undersigned at Tel. (310) 312-1500.

Respectfully submitted,
THE WAX LAW GROUP

Dated: February 7, 2008

By: 
Jeffrey S. Wax
Reg. No. 51,364
Tel. (310) 312-1500

Jeffrey S. Wax
Wax Law Group
2118 Wilshire Boulevard
Suite 407
Santa Monica, California 90403

Tel. (310) 312-1500

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on February 7, 2008.


Virginia Wilson

2.7.2008
February 7, 2008